

Amendments to the Specification:

Please replace the paragraph beginning at page 8, line 1 with the following:

According to another embodiment of the invention, the method as set forth above can further comprise contacting the support surface with a sample comprising first target molecules labeled with a first label and second target molecules labeled with a second label prior to contacting the support surface with the substrate composition. The first target molecules can be labeled with the first enzyme to form the first enzyme conjugate and the second target molecules can be labeled with the second enzyme to form the second enzyme conjugate. Alternatively, the first target molecules can be labeled with a moiety capable of binding to the first enzyme conjugate and the second target molecules can be labeled with a moiety capable of binding to the second enzyme conjugate. For example, the first and second enzyme conjugates can comprise enzyme-antibody conjugates and the first and second target molecules can be labeled with an antigen for the antibody. The method according to this embodiment can further comprise quantifying the amount of the first and the second target molecules in the sample. For example, the support surface further can comprise a fluorescent label and quantifying can comprise comparing the intensity of the first and/or the second chemiluminescent signals to the intensity of the signal from the fluorescent label.

Please replace the paragraph beginning at page 7, line 10 with the following:

Exemplary chemiluminescent quantum yield enhancing materials which can be used are disclosed in U.S. Patent No. 5,145,772, which is hereby incorporated by reference in its entirety. Exemplary chemiluminescent enhancement additives which can be used are disclosed in U.S. Patent No. 5,547,836, which is also hereby incorporated by

reference in its entirety. Exemplary chemiluminescent enhancement additives also include cyclodextrins.

Please replace the paragraph beginning at page 4, line 2 with the following:

According to one embodiment of the invention, a process comprising the sequential generation of chemiluminescent signals is provided. According to this embodiment of the invention, the support surface is contacted sequentially with different chemiluminescent (e.g., 1,2-dioxetane) substrates.